



User Experience Project Plan for mambo

Overview

The User Experience Project Plan lists the activities that should be completed for each project phase.

Please note: The recommendations provided in the User Experience Project Plan are based on the best available automated analysis of the information you provided. For individualized advice regarding process applicability, submit a [Workbench Service Request](#) in which you provide the details that are relevant to your specific project. Our experts will provide process guidance that is tailored to your specific situation.

Project Profile

Based on your input (below) about the mambo project, the **User Engineering** process is most appropriate for your project. However, there are one or more factors (below) that prevent your team from fully employing a User Engineering process. Therefore, it is recommended that your team follow the full **User-Centered Design** process and that you apply **User Engineering** activities where appropriate. For example, write a well-developed persona for a role in addition to task analysis.

Your team members should acquire the specialized education and skill levels required to use a **User Engineering** process successfully. When reporting on this project, do not refer to it as a "User Engineering project."

Factors Preventing the Use of User Engineering

General availability proximity	User Engineering takes a certain amount of time to perform. It is not usually applied to projects that must be completed in less than n months.
User Engineering skills and education	User Engineering cannot be performed without appropriate training and requires all team members to have achieved a level of 3 on the User Engineering skills grid.
Prior projects	If prior projects have used a User Engineering process, you should continue to use it
Project Size	User Engineering is not typically done on projects requiring less than 20 person-years of effort.
Project Extent	User Engineering is not typically done on minor upgrades to a product unless the process was employed on past projects.

General availability proximity (months)	12
Additional User Engineering skills or education required	No
Prior projects used User Engineering	
Offering type	Stand-alone
Effort	Small
Extent	New offering
On-demand enablement	
User Engineering Focus	
Marketing collateral	Medium
Setup	Low
Education	Medium
User interface	High
Web site	High
Web application	Medium
Support line	High
Service	None

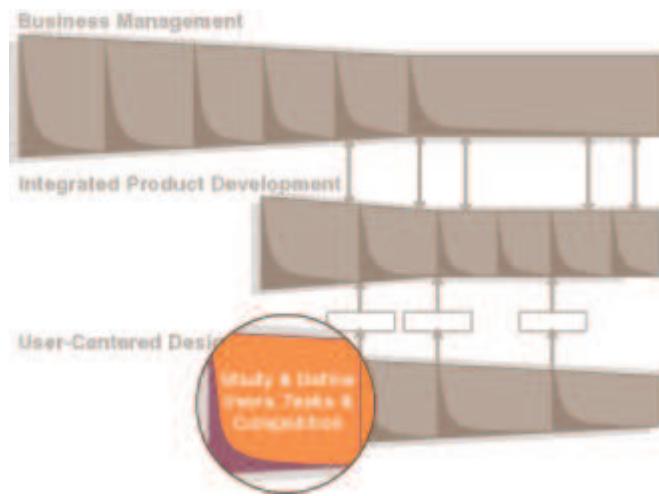
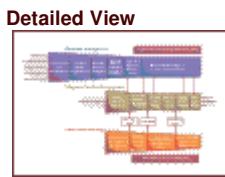
The UCD Process:

Discover: Study and define user's task and competition **Validate:** Validate product against user expectations
Design: Create conceptual design of the user **Communicate:** Support activities and deliverables for experience offering launch

Refine: Iteratively develop detail design with users

Assess: Evaluate implemented design in real-world setting

Discover Phase



Step 1. Assign Total User Experience Lead and develop UCD plan

This activity answers the question: **What UCD work do we need to do and when?**

The Product Development Team (PDT) Lead assigns a [Total User Experience Lead](#) for the project. The Total User Experience Lead works with the PDT Lead to develop the UCD Plan that will meet the customer satisfaction and business objectives of the offering. To complete the plan, create a new project entry in the [Metrics](#) section of this Workbench. Some divisions also require this information in a division-specific version of the Business Managers Workbench (BMW). A summary of [UCD best practices](#) from across the company may help to develop the plan.

The Methods section of this guide provides information on a variety of UCD methods by IPD phase that can help to develop the UCD plan for your project. This useful storehouse of information includes base UCD methods used by the product development divisions of the company, alternative advanced methods, as well as methods used specifically within IBM Global Services. Researched and written by members of the [UCD Advisory Council](#), these methods are state of the art, both inside and outside IBM.

View a [streaming video](#) to see an overview of these various methods in action.

Step 2. Assign multidisciplinary team members

This activity answers the question: **What staff with what skills do we need on the project?**

The Total User Experience Lead works with the PDT Lead to assemble the appropriate multidisciplinary skills required to iteratively design and evaluate the total user experience of the offering.

UCD-related staffing is complete when the team includes individuals from the following disciplines with relevant training and experience and in numbers appropriate to carry out the UCD Plan.

- Market Planning
- User Experience Design
- Visual Design (Software) - Industrial Design (Hardware)
- User Assistance Design
- Technology/Engineering/Development
- Customer Service and Support
- User Research
- Accessibility

See the Activities section of this guide for details on activities, resources, teamwork, and work products for each role at each IPD phase of a project.

These individuals need not work together as a formal team every hour of every day. However, when

necessary, they should interact effectively regarding the design and evaluation of the total user experience. The Total User Experience Lead is responsible for ensuring that the appropriate level of interaction takes place.

Read more about the [roles, skills, and experience](#) of the multidisciplinary team members. Information is also available on an [organizational model](#) that is particularly effective for specialist skills working with development organization skills.

To optimize UCD practice, it is advisable that all team members, the development organization, and management understand the UCD process. Several available classes help to increase UCD awareness: a two-day [Team Workshop](#) for the UCD team, a one-day [Introduction to UCD class](#) for the development organization, and a three-hour [Leadership Workshop](#) for management. You can request the scheduling of additional class dates and locations by submitting a request in the Get Started section of this Workbench.

Step 3. Get market information and set objectives and targets

This activity seeks to answer the questions: Who do we think will use this offering and what else is out there?

Market definition is critical to project success and the effectiveness of UCD. A requisite first step is to develop a clear understanding of market segmentation and particular segments that the offering will target. However, even when accompanied by the appropriate opportunity analysis and market-trend data, this information is insufficient.

The team also needs to know who the intended users are for the offering, what their key requirements are, and what the offering will be designed to replace in the market (the competitive solution). That is, whatever the users are doing today to perform their tasks is what the offering needs to replace by addressing the key identified requirements.

The Offering/Solution Business Plan (O/SBP) should define the following key pieces of information:

- Targeted market segments
- Customer requirements
- Competitive offering information
- New offering objectives
- Ease-of-use objectives
- Ease-of-use marketing messages
- Overall and usability customer satisfaction targets

It is critical to have this information at the start of the project, to check periodically that the information remains accurate, and to check that the project remains consistent with it.

At this stage, address any incomplete information in the O/SBP. Conduct additional analysis on all information in the document to establish objectives, ease-of-use targets, and ease-of-use marketing messages.

Additionally, establish usability and overall customer satisfaction targets relative to current release and competitor levels.

When setting objectives and targets, keep in mind that your project may require quantum leaps in user experience to achieve parity if the existing IBM offering is behind the competition in user experience. Gaining significant market advantage if the existing IBM offering is currently similar to the competition in user experience also requires an outstanding improvement in user experience. The ease-of-use objectives and customer satisfaction targets should reflect the degree of improvement that is required. The resulting overall product plan should embody the work required to achieve these objectives and targets.

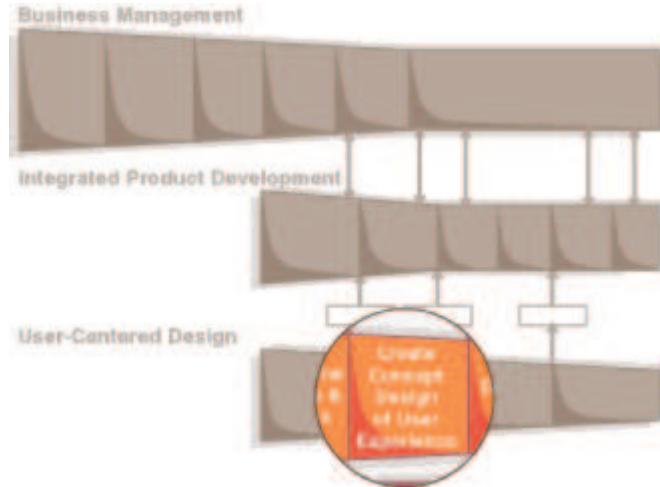
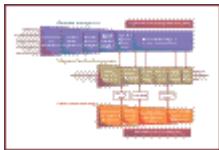
Additionally, use market information to create the important audience description. This description clarifies for designers the details of the users for whom they are designing the offering. It also identifies potential participants to invite to UCD user sessions.

Finally, use the [audience description](#) to recruit participants for the UCD user sessions required for subsequent activities. Rigorous participant recruiting is the foundation on which to build all subsequent UCD activities. It is critical that UCD participants accurately represent the target population.

The UCD activities in the Discover phase of UCD (Develop Requirements and Concepts phase of IPD) culminate in the [Concept Decision Checkpoint](#) at which critical UCD-related information is reviewed.

Design Phase

Detailed View



Step 4. Understand users

This activity seeks to answer the questions: What are the targeted users like, what do they do, what problems do they experience, and in what environment do they work?

Once you have acquired market information, set targets, and recruited the appropriate users, it is time to collect detailed information about the users. It is important to understand the tasks users currently carry out, the problems they experience in carrying out these tasks, and the social and physical environment or context in which these tasks take place. This information is key to building an understanding of the users' current experience, or user model, which is later used to design the new user experience with the offering.

A variety of methods available for understanding users are broadly referred to as Task Analysis. If the project involves developing the nth release of a product in a relatively stable market and previous task information is available, then Web-based methods of validating the task information may be appropriate (see the Conduct Web Surveys section of this Workbench). If the project is a new offering, ease of use is significantly important, and little is known about the users in the target market, then methods such as Contextual Inquiry, which is part of Contextual Design, may be most appropriate. If your project is between these extremes, the base [Task Analysis](#) method is a good balance between the two. Within IGS, the relevant workproducts are [User Profiles](#) and [Use Case Model](#).

View a streaming video to see [Task Analysis](#) methods in action.

Step 5. Understand the competitor solution

This activity seeks to answer the question: To what degree and in which ways does the competitive solution satisfy the user's needs?

Once you have acquired an understanding of the user, collect detailed information about the user experience with the competitive solution. This information is key to building an understanding of the competition from the user's perspective, which is used to design the new user experience with the offering that is competitive.

Whatever solution the majority of users employ today to carry out their tasks should be considered to be the competitive solution. This can be either a competitor's product or an analogue solution that does not currently involve an information technology solution. While information is often available on functions and features of competitor products, UCD requires that the competitor solution be understood from the users' perspective, that is, the experience users have in performing their tasks with the solution.

There are a variety of methods for understanding the competitor solution, from carrying out an [online survey](#) to conducting an in-the-lab [Competitor Evaluation](#) session. Within IGS, conducting a [Current Solution Evaluation](#) is recommended.

View a streaming video to see [Competitor Evaluation](#) methods in action.

Step 6. Design and evaluate the Total User Experience

This activity seeks to answer the questions: What should the Total User Experience be like for the offering and how is this for starters?

Once you have established target markets, defined the audience, made available information on understanding users, and acquired an understanding of the competitive solution, it is time to create the design of the Total User Experience of the offering. This is an iterative process that starts with the conceptual or high-level design and progresses toward detailed or low-level designs.

The conceptual or high-level design is the most important aspect to get right. In the early stages of design, changes can be made easily and inexpensively. However, changes late in the cycle are difficult and expensive. In addition, the conceptual or high-level design of the user experience sets the direction for the entire project. It is critical, therefore, to get it right in the beginning.

It is also key to design the entire user experience together with the specialists responsible for each aspect of it. That is, the multidisciplinary team needs to design and create mock-ups of the solution to ensure that there are answers for the following user questions: How do I find out about the offering? Why should I consider buying it? How do I acquire it? How do I unpack and set it up? How do I get started with it? How do I perform my major tasks with it? How can I get help? Where do I go if the help does not help? How can I upgrade it?

Total User Experience design requires designing, as one inclusive offering, all of the components that make up an offering. The components of the solution that IBM sells as the offering should be designed collectively and concurrently from the start, that is, from the conceptual or high-level design stage.

Gather user feedback on the conceptual design, or several alternative conceptual designs, relative to the competitor solution design. Input from these user feedback sessions is then used to modify the design.

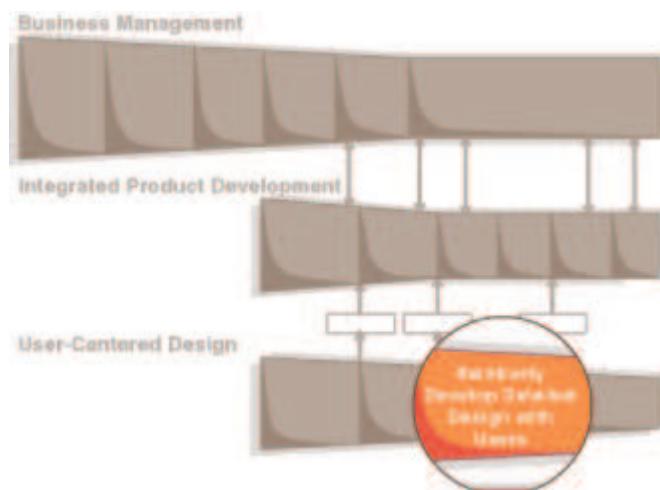
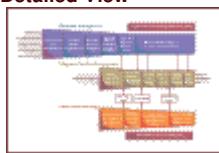
A wide variety of methods are appropriate at this point. The base approach of doing [Conceptual Design](#) and evaluating it by carrying out a [Design Walkthrough](#) should be a start for most teams. There are three advanced methods, each of which builds more context and rigor into the design process. [Contextual Design](#) focuses heavily on developing designs from a deep understanding of the context of how customers work. [Scenario-Based Design](#) includes Story-Based Design and focuses heavily on capturing design in the form of a scenario or story. This allows the design to be communicated effectively and further improved. Finally, [Model-Based Design \(OVID\)](#), or Object, View, and Interaction Design, takes an object-oriented (OO) software engineering approach to design of the user experience, including communicating the results of the design process using diagrams that are well understood by OO programmers. Each of these advanced methods requires some training and education, which is indicated in the individual method documents. The IGS workproduct [User Interface Conceptual Model](#) is also relevant at this point in the UCD process.

View a streaming video of [Conceptual Design](#) and another of a [Design Walkthrough](#) in action.

The UCD activities in the Design phase of UCD (Develop Definition and Project Plan phase of IPD) culminate in the [Plan Decision Checkpoint](#) where you review critical UCD-related information.

Refine Phase

Detailed View



Step 7. Refine and evaluate Total User Experience design details

This activity seeks to answer the question: **Does this work and what would make it better?**

At this point, you have defined the conceptual or high-level design for the Total User Experience and evaluated it with users. Now it is time to iteratively refine the detailed or lower-level design and to obtain user feedback on it. Initially, this is typically done using low-fidelity or paper prototypes for software and Web projects, and using foam core models for hardware projects. Subsequent prototypes gradually move closer to the actual product or offering.

Initial user feedback sessions focus on specific aspects of the offering. Later sessions typically focus more comprehensively on the total solution. Early sessions usually have limited user interaction with the design. Later sessions normally involve hands-on interaction, which helps to quantitatively validate user performance-based ease-of-use objectives.

Methods at this stage include the base methods of [Detailed Design](#), [interactive Design Evaluations](#), then [Design Validations](#), and finish up with [Early Ship Surveys](#). A useful method to augment these user evaluations is the [Heuristic Evaluation](#), which is a powerful technique for quick design evaluation. Detailed information is also available on the Design Evaluation technique of [Low-Fidelity Prototyping](#) and additional detailed information is available on [User-Based Design Evaluations](#). For user sessions in the lab, use a variety of [Logging Tools](#) to capture user behavior and feedback accurately. However, not all sessions with users have to take place in a UCD lab setting or at a user's location. There are a variety of [Remote Evaluation Methods](#) that you can use effectively to rapidly reach people across the globe.

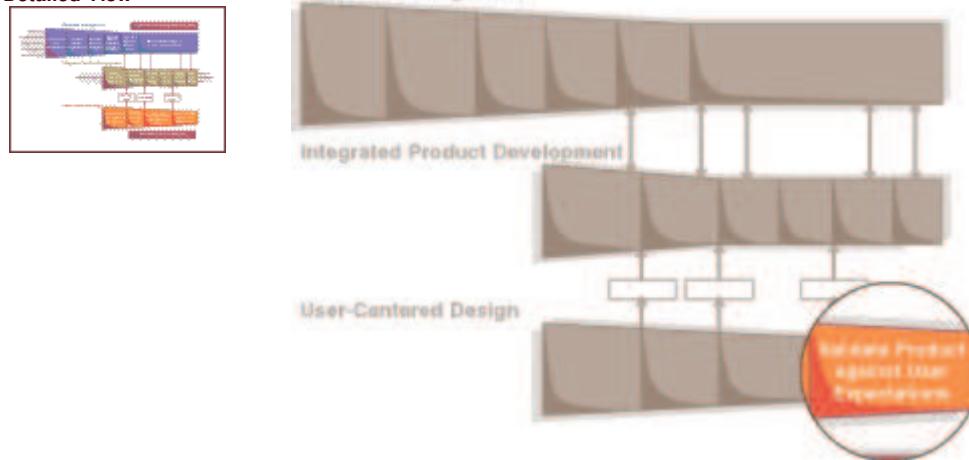
Within IGS, [Design Guidelines](#) are often a good first step, followed by the development of the [Design Specifications](#) and the accompanying [User Support Specifications](#). A [Design Prototype](#) is typically built next and then is evaluated using a [Usability Evaluation](#).

View a streaming video of [Detailed Design](#), another to see [Design Validation](#), and another to see [Early Ship Surveys](#) in action.

The UCD activities in the Refine phase of UCD (Develop and Verify phase of IPD) culminate in the [Availability Decision Checkpoint](#), where you review critical UCD-related information.

Validate Phase

Detailed View



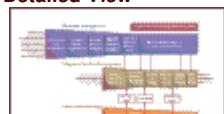
Step 8. Validate that the designed user experience has been implemented correctly

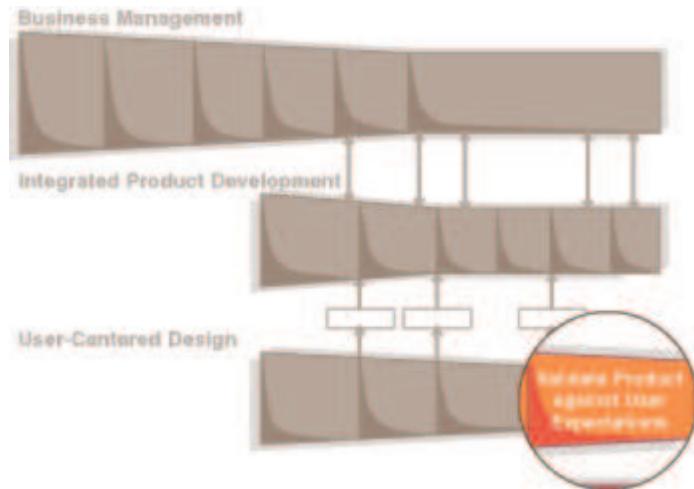
This activity seeks to answer the question: **Was everything that was designed implemented correctly?**

Minimal UCD work takes place after this point in the project. However, teams may accomplish important work, depending on project circumstances and requirements.

Communicate Phase

Detailed View





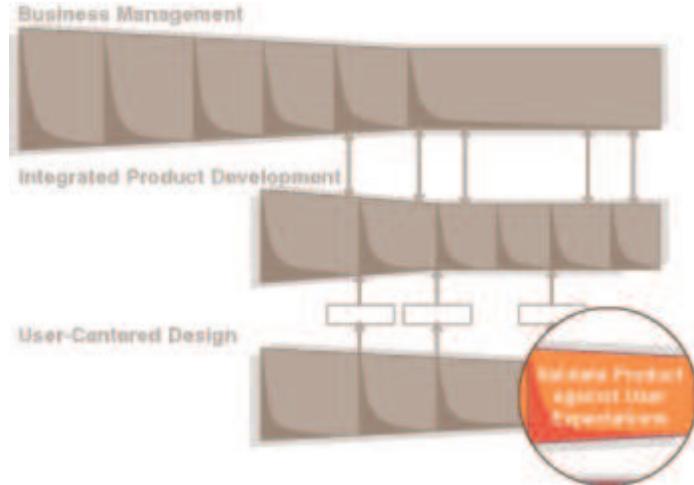
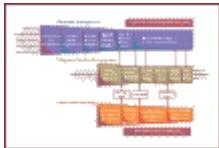
Step 9. Communicate ease-of-use messages

This activity seeks to answer the question: **Why should someone buy it?**

Minimal UCD work takes place after this point in the project. However, teams may accomplish important work, depending on project circumstances and requirements.

Assess Phase

Detailed View



Step 10. Assess real-world results

This activity seeks to answer the questions: **How did we do and how do we stack up?**

The last major activity involves assessing the implemented design in the real-world setting. Typically, you will use a larger sample of users than had been used during previous activities. A mandatory task within this activity involves using the CUPRIMDSO diagnostic survey to assess the customer satisfaction of the offering relative to the prime competitor customer satisfaction. That is, it is mandatory to assess, using appropriate survey techniques and methods, the attributes of capability, usability, performance, reliability, installability, maintenance, documentation, service, and overall.

Carry out this type of assessment during any early ship programs being run prior to General Availability, as well as a [Post Ship Customer Satisfaction Survey](#) conducted after shipping, using the IBM diagnostic survey program. IGS conducts a similar [Customer Satisfaction Assessment](#).

A hands-on assessment of the IBM solution relative to the competitor solution also may be appropriate in certain situations, particularly if the study results will be used in marketing materials to reinforce the superior ease of use of the IBM offering over the competitor. Typically, a third-party company conducts this [Benchmark Assessment](#) (to reduce the possibility of bias) and study results can be used in marketing material to support and substantiate the marketing messages made.

View a streaming video of a [Benchmark Assessment](#) in action.

